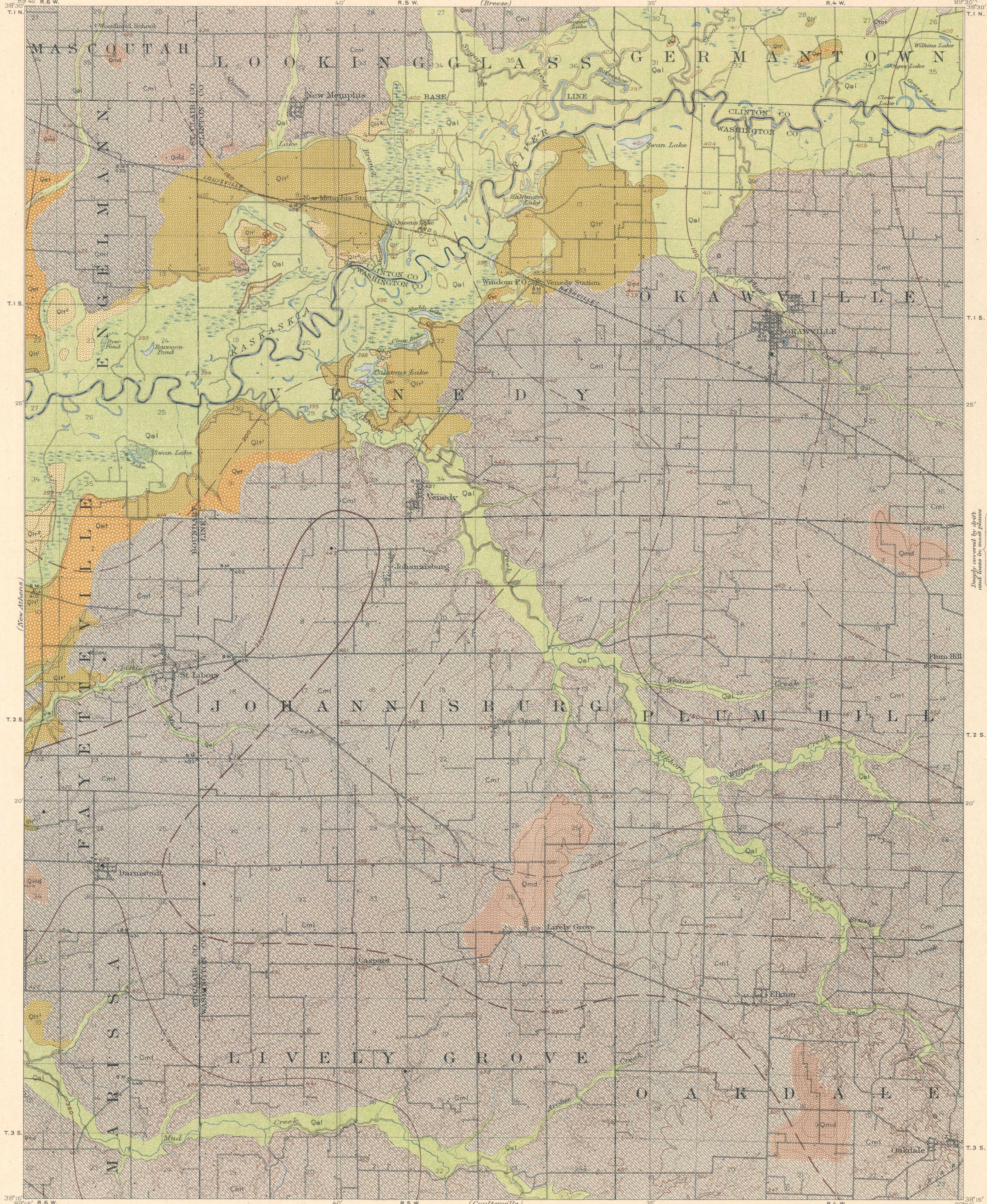


AREAL GEOLOGY

DEPARTMENT OF THE INTERIOR
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ILLINOIS
OKAWVILLE QUADRANGLE
R. 4 W.



EXPLANATION

SEDIMENTARY ROCKS

(Areas of subaqueous deposits are shown by patterns of parallel lines, subaerial deposits by patterns of dots and circles)

Qal
Alluvium
(In flood plains of present streams, upper part generally fine silt, lower part sandy or gravelly; in Kaskaskia River bottom in channel lakes and sloughs, stream deposits which are from 100 to 400 feet above sea level)

Qh
Later terrace deposits
(mainly clay and silt; Qh¹ higher terrace, of which about 200 feet; Qh² middle terrace, about 500 feet)

Qet
Earlier terrace deposits
(mainly clay and silt, altitude about 520 feet)

Qmd
Morainal drift
(hills of gravelly and sandy clay with some lenses of clean sand and gravel, mantled with loess)

Cml
McLeansboro formation
(generally soft shale and sandstone with some limestone and thin beds of coal; underlies all Quaternary deposits in the quadrangle)

Cml
Carboniferous

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ECONOMIC AND STRUCTURE DATA

Structure contours on the base of Herrin (No. 6) coal
(dashed position of coal indicated by dashed line; contour interval, 20 feet; datum, mean sea level)

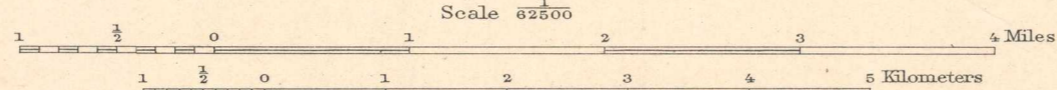
Local coal mines
* Abandoned coal mines
• Coal test borings
○ Wells drilled for oil

Note: The most valuable coal (Herrin, No. 6) and known in the region about New Athens and Okawville is the Herrin (No. 6) coal, lies 50 to 400 feet below the surface throughout the area except in the southwestern part of the New Athens quadrangle; other coals occur in the Pittsburg, Carboniferous, and McLeansboro formations; shale for brick and tile and limestone for cement materials and building stone occur in the Ohio, Carboniferous, and McLeansboro formations; loess and glacial till yield clay for brick and tile; alluvium, valley filling, and morainal drift locally carry sand and gravel.

R. B. Marshall, Chief Geographer.
W. H. Herron, Geographer in charge.
Topography by W. J. Lloyd and E. W. McCrory.
Control by J. R. Ellis and W. A. Gelbach.
Surveyed in 1908.

SURVEYED IN COOPERATION WITH THE STATE OF ILLINOIS.

APPROXIMATE MEAN
DECLINATION 1920.



Contour interval 20 feet.
Datum is mean sea level.

Edition of Mar. 1921.

Geology by E. W. Shaw.
Surveyed in 1911.
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